APPARATUS AND METHOD FOR DELIVERY OF MITOMYCIN THROUGH AN ELUTING BIOCOMPATIBLE IMPLANTABLE MEDICAL DEVICE

ABSTRACT

The present invention is an apparatus and a method for delivery of mitomycin through an eluting biocompatible implantable medical device. A biocompatible drug release matrix comprises a biocompatible drug release matrix and a drug incorporated into the biocompatible drug release matrix. The drug has antibiotic and anti-proliferative properties and is an analogue related to the quinone-containing alkylating agents of a mitomycin family. The drug is initially released from the biocompatible drug release matrix at a faster rate followed by a release at a slower rate. The drug release rate maintains tissue level concentrations of the drug for at least two weeks after implantation of the medical device. The present invention provides a coating for a vascular prosthesis that elutes the drug at a controlled rate to inhibit proliferation of smooth muscle cells causing restenosis.